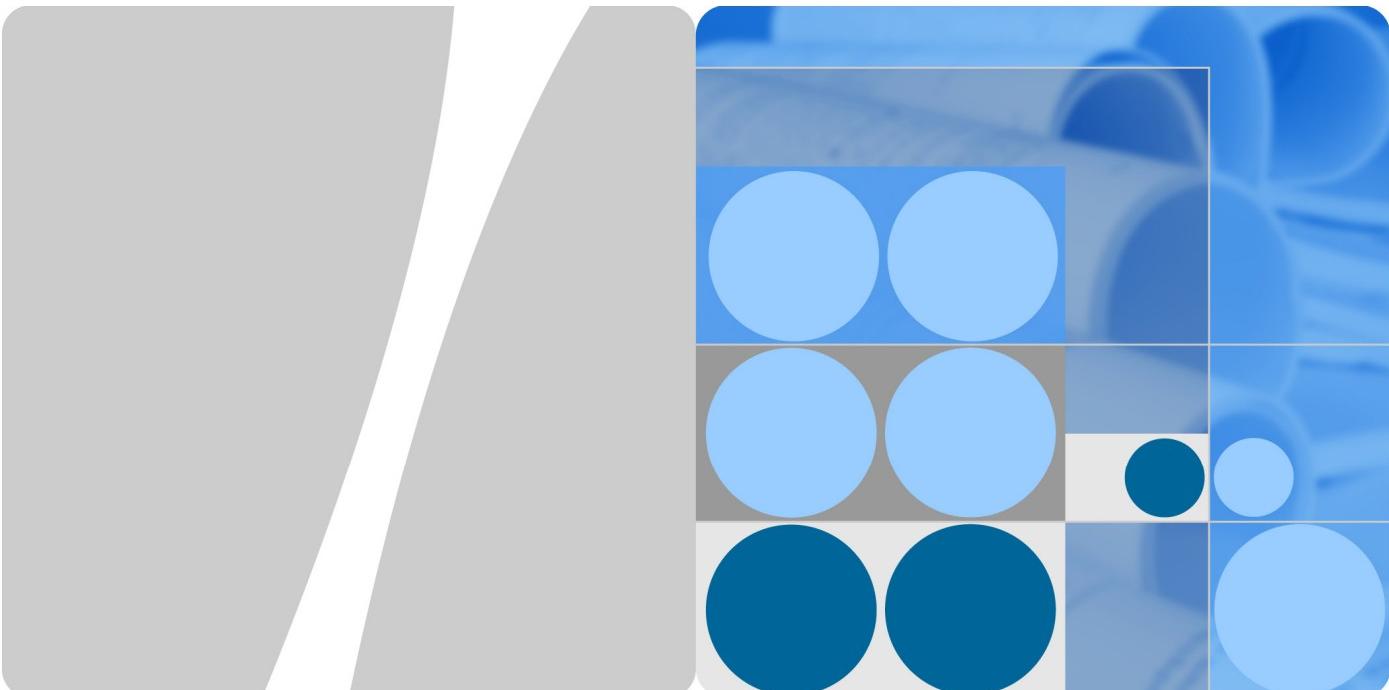


Part number: 203134



# HUAWEI WS320 Wireless Repeater Product Description

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HUAWEI TECHNOLOGIES CO., LTD.



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# 1 Overview

## 1.1 Function Overview

HUAWEI WS320 Wireless Repeater (hereinafter referred to as the WS320) is a radio signal repeater that can work with wireless access points (APs) to extend the wireless network coverage.

Using the WS320 over a wireless network effectively helps solve radio signal issues, such as signal impairment and attenuation. The WS320 receives radio frequency signals (that is, 802.11 frames) from wireless devices, such as APs, clients, or other repeaters, and forwards the frames without changing the contents of the frames, thus extending the wireless network coverage. The wireless signals of the WS320 can cover some dead zones, such as the partition walls or partition floors of bedrooms, cellars, or yards, thus effectively extending the wireless signal coverage and easily implementing various wireless applications.

A wireless local area network (WLAN) with the WS320 supports the IEEE 802.11b, 802.11g, and 802.11n standards, providing you with high-rate wireless networking functions.

Figure 1-1 shows the appearance of the WS320.

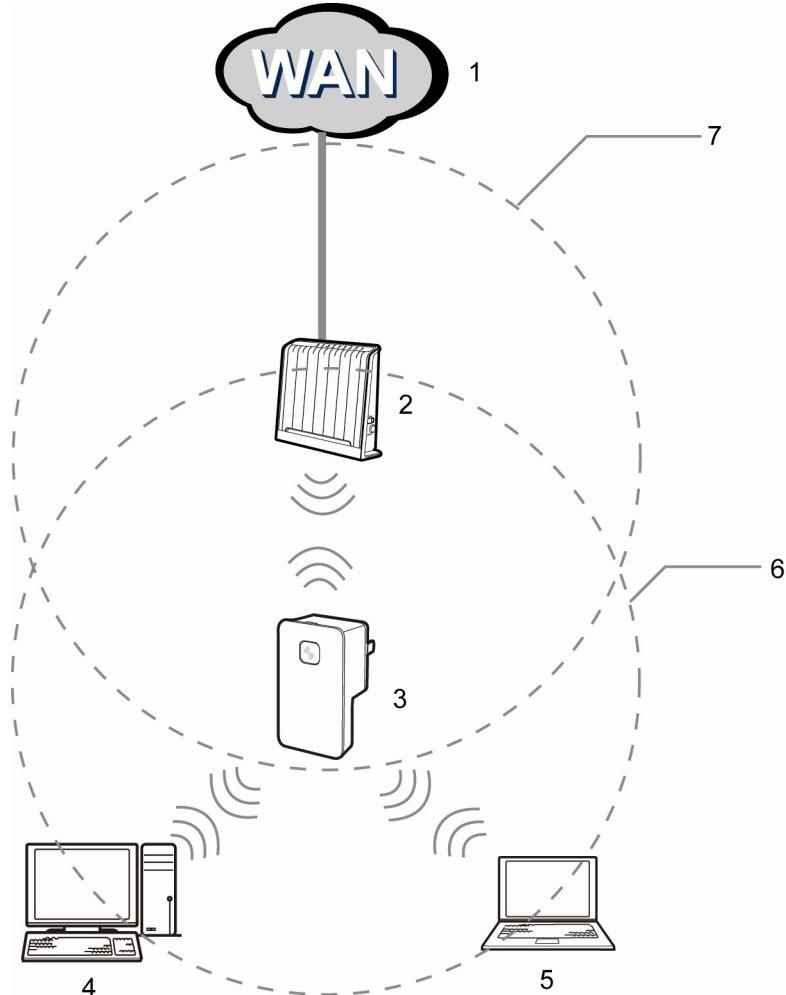
**Figure 1-1** Appearance of the WS320



## 1.2 Network Architecture

Figure 1-2 shows the networking diagram of the WS320.

**Figure 1-2** Networking diagram of the WS320

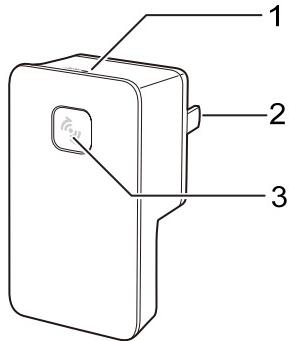


- 1. Wide area network (WAN)
- 2. Wireless AP
- 3. WS320
- 4. Desktop computer installed with a wireless adapter
- 5. Laptop installed with a wireless adapter
- 6. Coverage of the WLAN with the WS320
- 7. Coverage of the WLAN with the AP

## 1.3 Hardware Features

### 1.3.1 Interfaces and Buttons

**Figure 1-3** Interfaces and buttons on the WS320

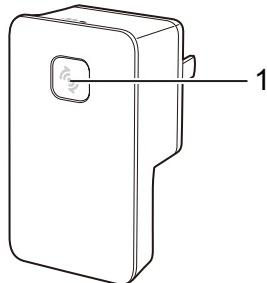


**Table 1-1** Functions of the interfaces and buttons

No.	Description
1	Reset button: used to restore the default settings of the WS320.
2	Power plug: used to connect to the power socket.
3	WPS button: used to start the WPS negotiation of the WS320.
<b>NOTE</b> WPS = Wireless Fidelity Protected Setup	

### 1.3.2 Indicators

**Figure 1-4** Indicator of the WS320



**Table 1-2** Description of the indicator on the WS320

No.	Description
1	Status indicator: located in the middle of the WPS button and used to indicate the working state of the WS320.

# 2 Product Features

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## 2.1 Built-In Antenna

With a built-in antenna, the WS320 features a compact, simple, and elegant appearance.

## 2.2 Multiple WLAN Protocols

The WS320 supports multiple WLAN protocols, including 802.11b, 802.11g, and 802.11n (2.4 GHz–2.4835 GHz, using a 1T × 1R antenna). It also supports different wireless encryption modes, providing a secure, reliable, and high-speed WLAN access for users.

## 2.3 802.11n

The WS320 supports 802.11n (using a 1T × 1R antenna). It can implement the network access at a high speed of 135 Mbit/s.

## 2.4 WPS

The WS320 provides a WPS button, which facilitates fast, convenient, and secure establishment of a wireless connection.

## 2.5 Convenient and Secure Management and Maintenance

The WS320 provides a Web-based configuration utility, and ensures secure use of this Web-based configuration utility through password verification.

# 3 Technical Specifications

## 3.1 WLAN Interface

### WLAN Specifications

- Supports the following multiple WLAN protocols:
  - 802.11b
  - 802.11g
  - 802.11n (2.4 GHz–2.4835 GHz)
- Supports multiple modulation modes
- Supports simultaneous access of multiple wireless terminals

### WLAN Rates

- 802.11b: 1 Mbit/s, 2 Mbit/s, 5.5 Mbit/s, and 11 Mbit/s
- 802.11g: 6 Mbit/s, 9 Mbit/s, 12 Mbit/s, 18 Mbit/s, 24 Mbit/s, 36 Mbit/s, 48 Mbit/s, and 54 Mbit/s
- 802.11n (using a 1T × 1R antenna): 6 Mbit/s, 6.5 Mbit/s, 13.5 Mbit/s, 19.5 Mbit/s, 26.0 Mbit/s, 27.0 Mbit/s, 39.0 Mbit/s, 40.5 Mbit/s, 52.0 Mbit/s, 54.0 Mbit/s, 58.5 Mbit/s, 65.0 Mbit/s, 81.0 Mbit/s, 108.0 Mbit/s, 121.5 Mbit/s, and 135.0 Mbit/s.

## 3.2 Security Features

- Supports the following multiple authentication modes on the WLAN interface
  - Open system
  - Wi-Fi Protected Access-pre-shared key (WPA-PSK)
  - WPA2-PSK
- Supports the following multiple encryption modes on the WLAN interface:
  - Wired Equivalent Privacy (WEP) encryption (64-bit and 128-bit)
  - Temporal Key Integrity Protocol (TKIP) encryption
  - Advanced Encryption Standard (AES) encryption
- Supports the following WPS modes:
  - Push Button Configuration (PBC) mode
  - Personal identification number (PIN) code mode
- Supports hiding of the service set identifier (SSID)

### 3.3 Maintenance and Management

- Local management through Web-based configuration utility
- Upgrading software through the Web management interface
- Software upgrade in multicast mode

### 3.4 Power Supply Specifications

- Supports power plugs with various specifications:
  - Chinese standard
  - American standard
  - British standard
  - European standard
- Power supply: 100 V AC–240 V AC
- Power consumption: < 5 W

### 3.5 Physical Specifications

Power Plug Specification	Dimensions (L × W × H)	Weight
China and America	76 mm × 42 mm × 59 mm	About 61 g
Britain	76 mm × 42 mm × 62mm	About 72 g
Europe	76 mm × 42 mm × 69mm	About 66 g

### 3.6 Environmental Specifications

- Ambient temperature for operation: 0°C to 40°C (32°F to 104°F)
- Relative humidity for operation: 5% to 95% , non-condensing

# 4 Acronyms and abbreviations

Abbreviation	Full Form
<b>AES</b>	Advanced Encryption Standard
<b>LAN</b>	local area network
<b>PBC</b>	Push button configuration
<b>PIN</b>	personal identification number
<b>PSK</b>	Pre-shared Key
<b>SSID</b>	service set identifier
<b>TKIP</b>	Temporal Key Integrity Protocol
<b>WAN</b>	wide area network
<b>WEP</b>	Wired Equivalent Privacy
<b>WLAN</b>	wireless local area network
<b>WPA</b>	Wireless Fidelity Protected Access
<b>WPS</b>	Wireless Fidelity Protected Setup